R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1-18 under 35 U.S.C. §102(e) as being anticipated by Jeon (2004/0066848) is respectfully traversed and should be withdrawn.

Jeon concerns a direct mode motion vector calculation method for B picture (Title).

In contrast, claim 1 of the present invention provides a method for determining a first and a second reference picture used for inter-prediction of a macroblock, comprising the steps of (A) finding a co-located picture and block, (B) determining a reference index, (C) mapping the reference index to a lowest valued reference index in a current reference list and (D) using the reference index to determine the second reference picture. Claim 10 provides similar limitations. Jeon does not disclose such steps.

In particular, the method of the present invention is concerned with determining a first and a second reference picture for inter-prediction of a macroblock. Inter-prediction relates to using information from a previous picture (or frame) when processing a current picture. In contrast, the cited sections of Jeon are concerned with determining the vector of a current block

from the motion vectors in neighboring blocks (within the same picture) because the co-located block in the previous picture lacks any motion information (since in Jeon the co-located block itself was intra-predicted). The Examiner's attention is directed to paragraph 88 of Jeon that discusses these Intra mode issues.

The previous office action (mailed 05-28-2008) completely failed to address step (d) "using said reference index to determine said second reference picture, wherein said first and second reference pictures are used for inter-prediction of said current block". The newly cited section of Jeon (i.e., paragraph 0111, mentioned on page two of the current Office Action) does not cure the previous deficiencies in that Jeon does not provide obtaining the motion vectors from the co-located previous block, as in the present claim. In particular, the newly cited passage is for a condition not appropriate to the present claim, to be discussed on more detail below.

Furthermore, the current Office Action continues to cite paragraph 90 as support for step (c) of the present invention. However, the presently claimed step (c) maps the reference index for the current block to a lowest valued reference index in a current reference list. The current reference list is used for Inter-prediction, as discussed above. The claimed current reference list provides mapping (see step (C)) to a lowest valued reference index. Paragraph 90 of Jeon clearly discusses the

8

reference picture indexes of neighboring blocks, not the reference list of a current block, as presently claimed. Specifically, paragraph 90 of Jeon looks at neighboring blocks to determine one reference index. Determining one reference from the neighboring blocks within a picture is not consistent with the steps of the claimed invention that determine the motion vectors from other pictures. Since Jeon does not discuss obtaining motion vectors from reference pictures, Jeon does not disclose or suggest each of the elements of the claimed invention and the rejection should be withdrawn. The current office action continues to fail to address this deficiency.

All of the elements of the claim must be addressed in the context of the claims. The current Office Action fails to do so. In particular, step 1(d) claims "using said reference index to determine said second reference picture .." The Office Action cites paragraph [0088], which makes reference to FIG. 4f of Jeon. FIG. 4f of Jeon show intra-prediction, so no motion vectors are present. With this in mind, this example of Jeon can not determine a second reference picture from a lowest valued reference index, as presently claimed.

Since FIG. 4f of Jeon does not apply to the claimed invention, examination of paragraph [0090], which references FIG. 5 will be made. This example in Jeon uses motion vectors from A, B, or C having a smallest reference index value for the current block.

9

However, blocks A, B, and C are not co-located in another picture, so step (A) is not met by FIG. 5.

Since FIG. 4f and FIG. 5 of Jeon do not apply to the claimed invention, examination of paragraph [0111], which references FIG. 8A will be made in the context of the claimed step (D) "wherein said first and second reference pictures are used for inter-prediction of said current block". FIG. 8 of Jeon uses the motion vectors of the co-located block for calculating MVf and Mvb of the current block B for inter-prediction. However, the second reference picture in this example is not determined from the lowest valued reference index, as presently claimed.

Jeon describes in detail several examples. However, as shown above, Jeon does not contemplate all of the elements of the claimed invention. Therefore, the presently claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

The Examiner's attention is also directed to claim 3, which is believed to be independently allowable.

Since the reference relied on in the current Office Action does not disclose the claimed elements, the Examiner is requested to either send (i) a notice of allowance or (ii) a non-final Office Action with new references. Alternatively, the Examiner is asked to initiate a telephone interview if further clarification is needed.

10

COMPLETENESS OF THE OFFICE ACTION

The Office Action does not meet the Office's requirement of completeness and clarity for Examiner's Actions (see MPEP §707.07 and 37 CFR 1.104(b)). The current office action appears to merely only add one sentence (on page 3 when discussing step (d)) to the previous Office Action. Almost no explanation was provided. Therefore, the Office Action is not complete and clear as required by MPEP §707.07 and 37 CFR 1.104(b). As such, should an action other than a notice of allowance be deemed appropriate, such action should (i) be a non-final Office Action and (ii) properly address ALL of the elements of the pending claims and address all of the arguments presented herein.
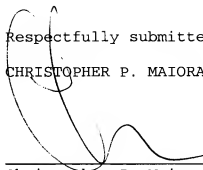
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative between the hours of 9 a.m. and 5 p.m. ET at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit Account No. 12-2252.

Respectfully submitted,

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Dated: June 2, 2009

c/o Lloyd Sadler
LSI Corporation

Docket No.: 03-1431 / 1496.00341